

Asterion

Sorensen

Asterion DC Series

High Performance Programmable DC Power Supply

1.7 / 3.4 / 5 / 10 kW
40 V to 400 V
4.3 A to 250 A

Technical Note: Autoranging Output Characteristics

Performance. Reliance. Brilliance.

The Sorensen™ Asterion® DC Series is the newest addition to the Asterion platform of power testing solutions. The new DC series features two types of product lines: fixed range and autoranging. The fixed range supplies are economical, traditional, rectangular wave output power supplies with all the enhanced operation advantages standard with the Asterion platform. The autoranging supplies feature expanded current and voltage range at the full output power level, enabling the ability to satisfy a wider testing need without requiring the purchase of additional models.



Maximize rack space utilization with leading DC power density in a 1U or 2U chassis.

Autoranging models satisfy a wider testing need in a single power supply.

Quickly and expertly control the DC supply with intuitive touchscreen.

Autoranging Model Output Characteristics

The Asterion DC autoranging models have an output characteristic where the full rated output power is available at voltage and current ranges greater than the conventional rectangular output characteristic of fixed range power supplies. The output current versus output voltage follows a constant-power curve to provide users a wider current and voltage operating range in a single power supply.

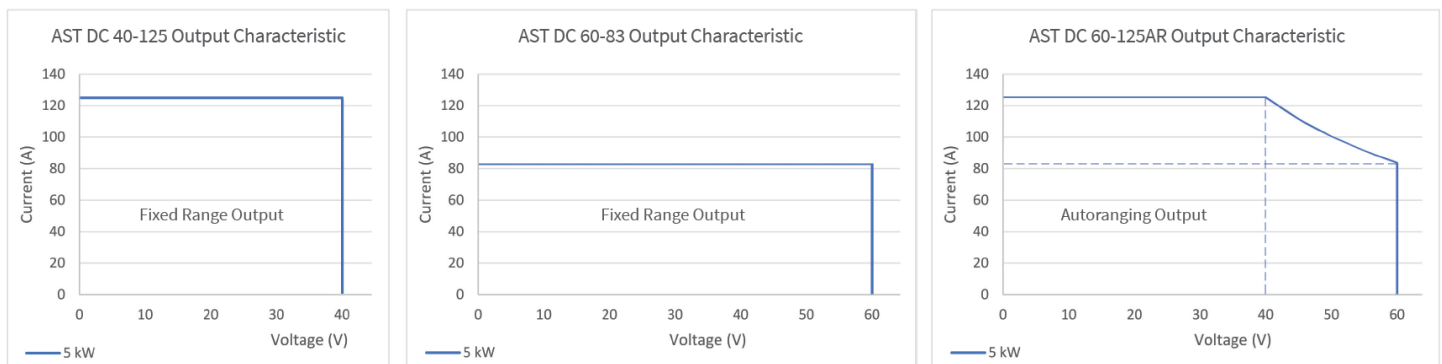


Figure 1 - Fixed Range vs Autoranging Output

Asterion DC 1.7-10 kW Series

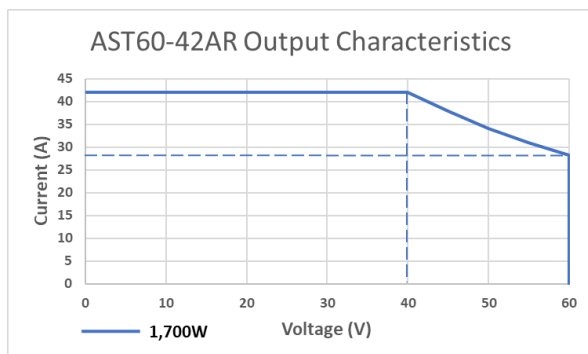
Technical Note: Autoranging Output Characteristics

As shown in Figure 1 the autoranging characteristics provide additional range and value for applications requiring various power requirements in a single power supply. This eliminates the need to purchase multiple power supplies in some cases. The autoranging capability AST 60-125AR provides full rated output power over 67% of its voltage and current range as shown in the table below.

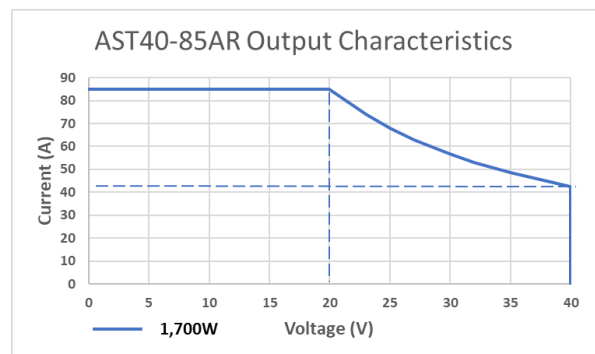
Asterion AST 60-125AR – 5 kW Autoranging Model				
Parameter		Supply #1	Supply #2	Supply #3
Rated Output Voltage	V	40	50	60
Rated Output Current	A	125	100	83
Rated Output Power	W	5000	5000	5000

The output characteristics for all Asterion DC Autoranging models are shown on the following pages.

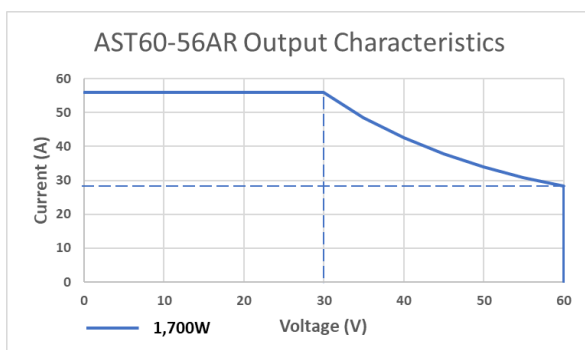
Asterion DC Output Specifications – 1.7 kW Autoranging Models						
MODEL		AST 60-42AR	AST 40-85AR	AST 60-56AR	AST 200-17AR	AST 400-6AR
Rated Output Voltage	V	60	40	60	200	400
Rated Output Current	A	42	85	56	17	6
Rated Output Power	W	1700	1700	1700	1700	1700



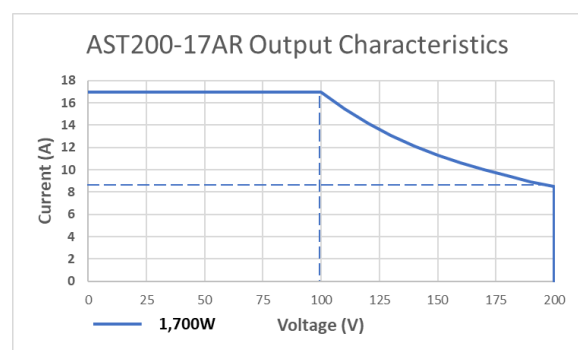
Up to 40V at maximum current & 28.3A at maximum voltage.



Up to 20V at maximum current & 42.5A at maximum voltage.



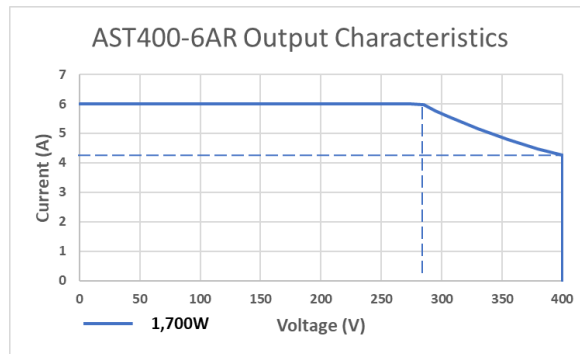
Up to 30V at maximum current & 28.3A at maximum voltage.



Up to 100V at maximum current & 8.5A at maximum voltage.

Asterion DC 1.7-10 kW Series

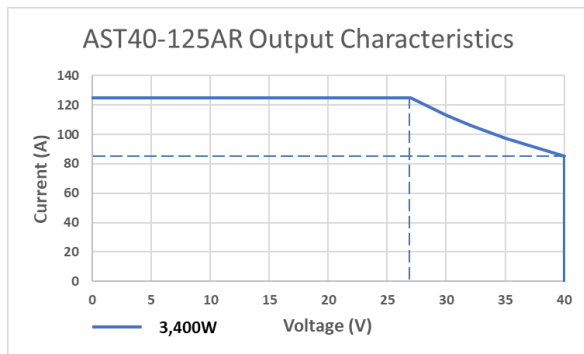
Technical Note: Autoranging Output Characteristics



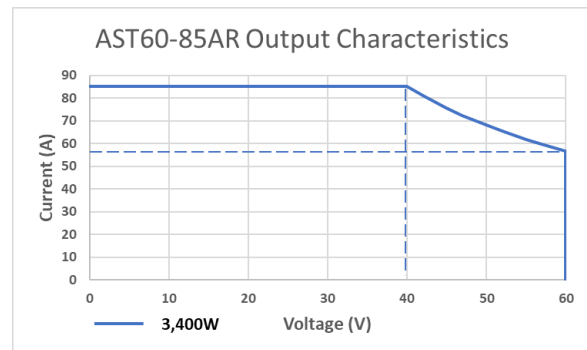
Up to 283V at maximum current & 4.25A at maximum voltage.

Asterion DC Output Specifications – 3.4 kW Autoranging Models

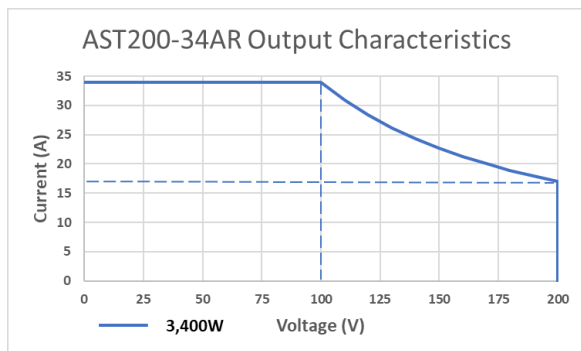
MODEL		AST 40-125AR	AST 60-85AR	AST 200-34AR	AST 400-12AR
Rated Output Voltage	V	40	60	200	400
Rated Output Current	A	125	85	34	12
Rated Output Power	W	3400	3400	3400	3400



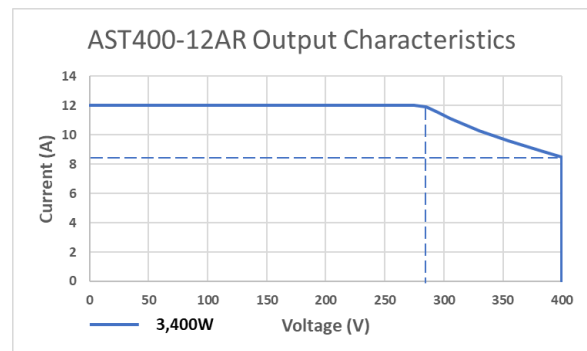
Up to 27V at maximum current & 85A at maximum voltage.



Up to 40V at maximum current & 56.7A at maximum voltage.



Up to 100V at maximum current & 17A at maximum voltage.



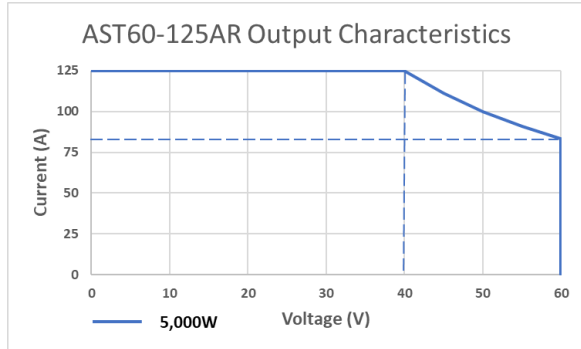
Up to 283V at maximum current & 8.5A at maximum voltage.

Asterion DC 1.7-10 kW Series

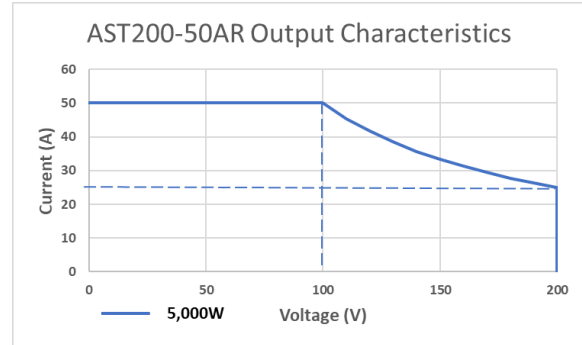
Technical Note: Autoranging Output Characteristics

Asterion DC Output Specifications – 5 kW Autoranging Models

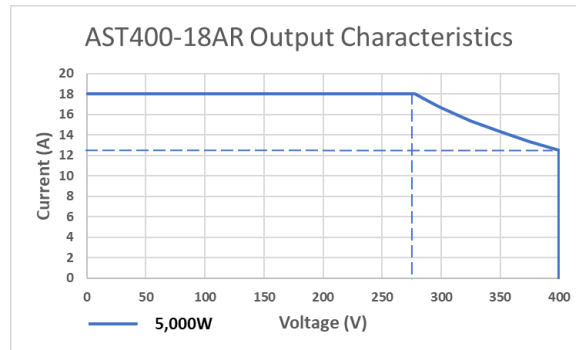
MODEL		AST 60-125AR	AST 200-50AR	AST 400-18AR
Rated Output Voltage	V	60	200	400
Rated Output Current	A	125	50	18
Rated Output Power	W	5000	5000	5000



Up to 40V at maximum current & 83.3A at maximum voltage.



Up to 100V at maximum current & 25A at maximum voltage.

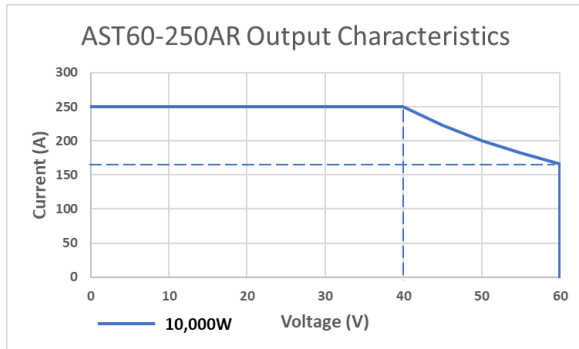


Up to 278V at maximum current & 12.5A at maximum voltage.

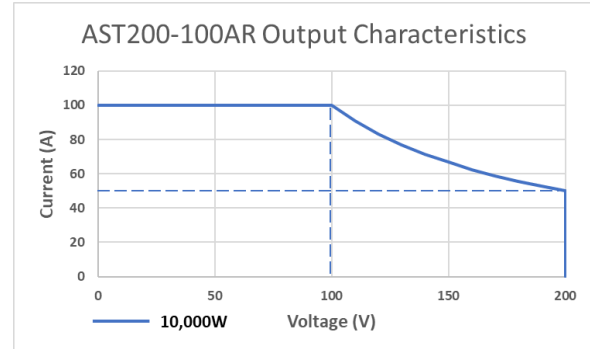
Asterion DC 1.7-10 kW Series

Technical Note: Autoranging Output Characteristics

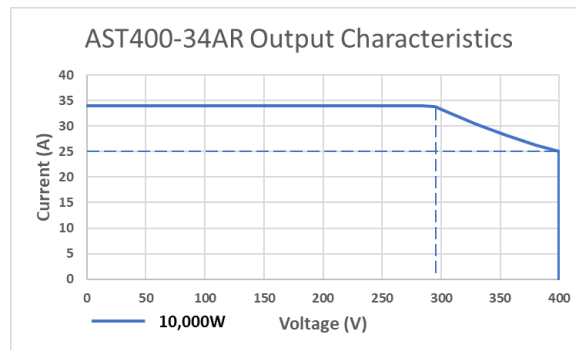
Asterion DC Output Specifications – 10 kW Autoranging Models				
MODEL		AST 60-250AR	AST 200-100AR	AST 400-34AR
Rated Output Voltage	V	60	200	400
Rated Output Current	A	250	100	34
Rated Output Power	W	10000	10000	10000



Up to 40V at maximum current & 166.7A at maximum voltage.



Up to 100V at maximum current & 50A at maximum voltage.



Up to 294V at maximum current & 25A at maximum voltage.

Warranty Statement:

AMETEK Programmable Power Inc. warrants its products to be free from defects in material and workmanship. The warranty period is from the date of original shipment of the product to the original purchaser (see website for warranty periods by product). Asterion DC comes with a **five (5)** year warranty. Extended warranties available.

Note: All specifications subject to change without notice.